

AMENDMENTS TO THE SPECIFICATION:

1. At the top of page 1 after the title "SUPERHYDROPHOBIC COATING", insert the following headings:

BACKGROUND OF THE INVENTION

(1) Field of the Invention

2. Following the first paragraph of the application on page 1, after line 5, insert the following heading:

(2) Description of the Related Art

Please insert the following heading after line 17 on page 2:

BRIEF SUMMARY OF THE INVENTION

4. After the last complete paragraph on page 2, the last line 28 which reads "...characterized by its simplicity, efficacy and low cost", please insert the following:

BRIEF DESCRIPTION OF FIGURES

Fig. 1. SEM images of the MPPS coating on a) a silicon wafer and b) on a glass substrate.

Fig. 2. AFM height image of a MPPS-coated glass slide.

Fig. 3. UV-spectra of glass slides. Dotted line: MPPS-coated on both sides; continuous line: cleaned and plasma treated glass slide for comparison.

Fig. 4. Durability of a MPPS-coated glass slide subjected to long-term UV-irradiation.

Fig. 5. Durability of a MPPS-coated glass slide subjected water vapour atmosphere in an autoclave.

Fig. 6. A 10 µl water droplet on a coated cotton fabric.

Fig. 7. A 10 µl water droplet on ceramics.

Fig. 8. Experimental setup used for coating.

Fig. 9. TEM image of the polysiloxane filaments embedded in epoxy resin.

Fig. 10. Coated (left) and uncoated (right) glass slide immersed in water. The coated slide shows total reflection. The bubbles are air bubbles.

Fig. 11. Iridescence of a coated glass slide while rinsing.

Fig. 12 Force-displacement curve at a MPPS-coated silicon surface. The irregular pattern in the withdrawal curve of the approach-retract-cycle can be interpreted as the step by step release of filaments from the tip which got stuck to it by adhesion forces when the tip was in contact with the surface.

DETAILED DESCRIPTION OF THE INVENTION

5. Please replace the following paragraph beginning at line 5 on page 5 with the following paragraph:

If the composition for coating comprises a compound of formula II, the volume ratio of compound of formula I to compound of formula II ranges from 1:100 to 100:1, preferably from 1:50 to 50:1, more preferably from 1:10 to 10:1, most preferably from 1:1 to 5:1 depending on the nature of the compounds and the nature of the substrate. For example, on glass slides the highest contact angles of up to 165° were observed with a composition comprising TCMS and PMDS in a volume ratio of 3:1 (MPPS).

6. Please replace the paragraph beginning at line 3 on page 7 with the following paragraph:

Characterization of the surface coatings of the invention by scanning electron microscopy (SEM), transmission electron microscopy (TEM) and scanning force microscopy (SFM)

demonstrated the formation of distinct geometrical forms, such as thin filaments giving rise to the required surface roughness (Figure 1-2, 9). The fibers are solid and ranged from very short, nearly spherical bases up to several μm in length with diameters ranging from approximately 10 nm to 160 nm.

7. Please replace the paragraph beginning at line 7 on page 8 with the following paragraph:

XPS (X-ray photoelectron spectroscopy) investigations of coated silicon samples confirm the atomic ratios of polymerised TCMS C:Si:O = 1:1:1.5 within the limits of error. No chlorine was found in the coating. In none of the three measurements with three different samples signals of the underlying substrate material were observed indicating a coating free of defects.

*8. Per MPEP 714, please delete the entire section with the heading “**Legend to the figures**” as shown on page 9, including all the remaining text on page 9 only (i.e. all the paragraphs on page 9 from line 1 through line 20). This entire section has now been moved to page 2 of the specification under the new heading “BRIEF DESCRIPTION OF FIGURES” as requested in item 4 above.*

9. Please replace the following paragraph beginning at line 28 on page 11 with the following paragraph:

The root-mean-square roughness R_{RMS} and mean layer thickness were determined by atomic force microscopy (AFM) and X-ray reflectometry. In case of an MPPS-coated glass sample a root-mean-square roughness R_{RMS} of 27 nm was observed.